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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 10/595,140
Filing Date: March 03, 2006
Appellant(s): ANTTALAINEN ET AL.

Sidney L. Weatherford
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 8/26/2011 appealing from the Office action mailed 4/28/2011.

(1) Real Party in Interest

A statement identifying by name the real party in interest contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

Claims 1-3 and 5 are the list of claims that are rejected and pending in the application.

(4) Status of Amendments After Final

The examiner has no comment on the appellant's statement of the status of amendments after final rejection contained in the brief.

(5) Summary of Claimed Subject Matter

The examiner has no comment on the summary of claimed subject matter contained in the brief.

(6) Grounds of Rejection to be Reviewed on Appeal

The issue presented for the appeal is whether claims 1-3 and 5-6 are properly rejected under 35 U.S.C. § 103(a) as being unpatentable over Ernam et al. (hereinafter Ernam) (US 6097951) in view of Ho et al. (hereinafter Ho) (US 6091953).

The appellant's statement of the grounds of rejection to be reviewed on appeal is not the outstanding Office action to be reviewed on appeal.

(7) Claims Appendix

The examiner has no comment on the copy of the appealed claims contained in the Appendix to the appellant's brief.

(8) Evidence Relied Upon

| | | |
|------------|--------------|--------|
| US 6097951 | Ernam et al. | 8-2000 |
| US 6091953 | Ho et al. | 7-2000 |

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims: ***Claim***

Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 and 5-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ernam et al. (hereinafter Ernam) (US 6097951) in view of Ho et al. (hereinafter Ho) (US 6091953).

Regarding **claim 1**, Ernam teaches a method of controlling a communication control entity in a communication control part of a mobile communication network that comprises said communication control part (**items 32, 34, 36 and 38 in Figure 3**) and an access part(**item 28 in Figure 3**), said communication control entity acting as a primary communication entity (serving **MSC along with the dispatcher MSC (DMSC) act as a primary control entity, Figure 3**)for a call communication and belonging to a

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pool of communication control entities among which no handover procedure is conducted as long as a mobile communication device moves among service realms associated with a predetermined number of access control entities that are connected to said pool, (**Figures 3-4; “pool of mobile switching centers (items 34, 36 and 38 in figure 3 are interconnected with one another”**, Abstract, **“With respect to inter-MSC handovers, there will not be a need for Inter-MSC handovers within the system. When there is an incoming mobile unit from another network, only then will there be a need to do an inter-MSC handover”**, Col. 10, 41-43), said method comprising the steps:

receiving a handover request for removing a first secondary communication control entity from a control process for controlling said call communication and adding a second secondary communication control entity (**“handover processing”**, Col. 10, line 1; **“With respect to inter-MSC handovers, there will not be a need for Inter-MSC handovers within the system. When there is an incoming mobile unit from another network, only then will there be a need to do an inter-MSC handover”**, Col. 10, 41-43);

Ernam did not teach specifically determining whether said second secondary communication control entity belongs to said pool, and if said second secondary communication control entity belongs to said pool, rejecting said second secondary communication control entity to said control procedure and instead communicating directly by said communication control entity with the mobile communication device of which said given call communication is being controlled via an access control entity

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connected to said primary communication control entity without utilizing any secondary communication control entity as a relay.

However, Ho teaches in an analogous art the method of determining whether said second secondary communication control entity belongs to said pool, and if said second secondary communication control entity belongs to said pool, rejecting said second secondary communication control entity to said control procedure and instead communicating directly by said communication control entity with the mobile communication device of which said given call communication is being controlled via an access control entity connected to said primary communication control entity without utilizing any secondary communication control entity as a relay

(HO: A subscriber currently in the area of a particular BSC can be supported by any MSC in the network. Since the mobile units are permanently associated with a particular MSC, no inter-MSC location update and handover is necessary as long as the mobile unit stays within the service area of the wireless communication system.

Moreover, using the message router methodology no routing database is necessary and the number of message routers can be increased as needed, Col. 20, lines 20-35). Therefore, determination step is performed to check whether the mobile unit stays within the service area (within the pool of MSCs) or moving outside the service area.

Therefore, it would be obvious to one of ordinary skill in the art at the time of invention to use the method of determining whether said second secondary communication control entity belongs to said pool, and if said second secondary communication control entity belongs to said pool, rejecting said second secondary

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communication control entity to said control procedure and instead communicating directly by said communication control entity with the mobile communication device of which said given call communication is being controlled via an access control entity connected to said primary communication control entity without utilizing any secondary communication control entity as a relay in order to eliminate inter-MSC location update and handover results in lower processing load at the MSCs and HLR(HO: col. 20, lines 37-40).

The second secondary communication control entity is not used as a relay, because no inter-MSC handover is being performed within the pool.

Regarding **claim 2**, Ernam teaches the method of claim 1, wherein said primary communication control entity determines whether said second secondary communication control entity belongs to said pool by determining an identifier of said second secondary communication control entity from said handover request and comparing said identifier with a list of identifiers of communication control entities belonging to said pool (items 46,48 and 56 in Figures 3-4) .

Regarding **claim 3**, Ernam teaches the method of claim 1, wherein said primary communication control entity determines whether said second secondary communication control entity belongs to said pool by determining an identifier of an access control entity connected to said second secondary communication control entity from said handover request and comparing said identifier with a list of identifiers of access control entities belonging to said predetermined number of access control entities (“MSC/VLR”, “VLR_id”, Col. 4, lines 41-55, Figures 3-4).

Claim 5 and 6 are rejected for the same reason as set forth in claim 1.

(10) Response to Argument

The appellant's arguments are based on Ernam under 35 U.S.C. § 102(b) and not on the outstanding Office action (mailed 4/28/2011) to be reviewed on appeal.

Therefore, the issue presented for the appeal is whether claims 1-3 and 5-6 are properly rejected under 35 U.S.C. § 103(a) as being unpatentable over Ernam et al. (hereinafter Ernam) (US 6097951) in view of Ho et al. (hereinafter Ho) (US 6091953).

Appellant argues that the pertinent elements of claim 1(claims 5 and 6 are similar limitations are analogous to claim1) that are missing from the prior art are emphasized in claim 1 below.

A method of controlling a communication control entity in a communication control part of a mobile communication network that comprises a communication control part and an access part, said communication control entity acting as a primary communication entity for a call communication and belonging to a pool of communication control entities among which no handover procedure is conducted as long as a mobile communication device moves among service realms associated with a predetermined number of access control entities that are connected to said pool, said method comprising the steps:

receiving a handover request for removing a first secondary communication control entity from a control process for controlling said call communication and adding a second secondary communication control entity;

determining whether said second secondary communication control entity belongs to said pool, and if said second secondary communication control entity belongs to said pool, rejecting said second secondary communication control entity to said control procedure and instead communicating directly by said communication control entity with the mobile communication device of which said given call communication is being controlled via an access control entity connected to said primary communication control entity without utilizing any secondary communication control entity as a relay.

In response Appellant's argument Examiner would like to submit the following:

Ernam teaches a method of controlling a communication control entity in a communication control part of a mobile communication network that comprises said communication control part (**items 32, 34, 36 and 38 in Figure 3 are the MSC's form the communication control part**) and an access part(**item 28 in Figure 3 are the BSc form the access part**), said communication control entity acting as a primary communication entity (**serving MSC along with the dispatcher MSC (DMSC) act as a primary control entity, Figure 3**)for a call communication and belonging to a pool of communication control entities (**Figures 3-4; "pool of mobile switching centers (items 34, 36 and 38 in figure 3 are interconnected with one another", Abstract)**

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among which no handover procedure is conducted as long as a mobile communication device moves among service realms associated with a predetermined number of access control entities that are connected to said pool.

(“With respect to inter-MSC handovers, there will not be a need for Inter-MSC handovers within the system. When there is an incoming mobile unit from another network, only then will there be a need to do an inter-MSC handover”,
Col. 10, 41-43),

said method comprising the steps:

receiving a handover request for removing a first secondary communication control entity from a control process for controlling said call communication and adding a second secondary communication control entity

(“handover processing”, Col. 10, line 1; “With respect to inter-MSC handovers, there will not be a need for Inter-MSC handovers within the system. When there is an incoming mobile unit from another network, only then will there be a need to do an inter-MSC handover”, Col. 10, 41-43; Ernam teaches handover processing which includes Inter-MSC handover. Further these processing of handovers are based on request; Note: the limitation is just a definition for inter-MSC handover).

determining whether said second secondary communication control entity belongs to said pool, and if said second secondary communication control entity belongs to said pool, rejecting said second secondary communication control entity to said control procedure and instead communicating directly by said communication control entity with the mobile communication device of which said given call

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communication is being controlled via an access control entity connected to said primary communication control entity without utilizing any secondary communication control entity as a relay

Ho teaches inter-MSC handover (col. 20, lines 20-35, as cited below) by definition inter-MSC handover is a control procedure which requires switching from first MSC(first communication control entity) to a second MSC(second communication control entity).

Ho further teaches no inter-MSC location update and handover is necessary as long as the mobile unit stays within the service area of the wireless communication system(col. 20, lines 20-35 as cited below). Since no inter MSC handover is performed when the mobile is within the pool(within the service area of the wireless communication system), the communication is continued with the previous first MSC and not through the second MSC(second communication control entity is rejected).

(The citation form Ho is shown below: A subscriber currently in the area of a particular BSC can be supported by any MSC in the network. Since the mobile units are permanently associated with a particular MSC, no inter-MSC location update and handover is necessary as long as the mobile unit stays within the service area of the wireless communication system. Moreover, using the message router methodology no routing database is necessary and the number of message routers can be increased as needed, Col. 20, lines 20-35). Therefore, determination step is performed to check whether the mobile unit stays within the service area (within the pool of MSCs) or moving outside the service area.

Argument (Page 8)

Appellant further argues that the phrase in the preamble of claim 1, "the communication control entity acting as a primary communication entity for a call communication and belonging to a pool of communication control entities among which no handover procedure is conducted as long as a mobile communication device moves among service realms associated with a predetermined number of access control entities that are connected to said pool, is not disclosed in Ernam reference.

Examiner respectfully disagrees.

Ernam teaches the phrase in the preamble of claim 1,

"the communication control entity acting as a primary communication entity (**the serving MSC along with the dispatcher MSC (DMSC) act as a primary control entity, Figure 3**) for a call communication and belonging to a pool of communication control entities (**Figures 3-4; "pool of mobile switching centers (items 34, 36 and 38 in figure 3 are interconnected with one another"**, Abstract)

among which no handover procedure is conducted as long as a mobile communication device moves among service realms associated with a predetermined number of access control entities that are connected to said pool, (**"With respect to inter-MSC handovers, there will not be a need for Inter-MSC handovers within the system. When there is an incoming mobile unit from another network**(from outside of the pool), **only then will there be a need to do an inter-MSC handover**(switching from the pool to the outside the pool)", Col. 10, 41-43; items 66,

68 and 69 are access control entities that are connected to said pool as shown in Figure 5).

Argument (Page 10)

Appellant argues that in claim 1 the following element (the emphasized portion) is not found in Ernam (as are similar limitations in claims 5 and 6).

“...rejecting said second secondary communication control entity to said control procedure and instead communicating directly by said communication control entity with the mobile communication device”.

Examiner respectfully disagrees.

Ho teaches inter-MSC handover (col. 20, lines 20-35, as cited below) by definition inter-MSC handover is a control procedure which requires switching from first MSC(first communication control entity) to a second MSC(second communication control entity).

Ho further teaches no inter-MSC location update and handover is necessary as long as the mobile unit stays within the service area of the wireless communication system(col. 20, lines 20-35 as cited below). Since no inter MSC handover is performed when the mobile is within the pool(within the service area of the wireless communication system), the communication is continued with the previous first MSC and not through the second MSC(second communication control entity is rejected).

(The citation from Ho is provided below: A subscriber currently in the area of a particular BSC can be supported by any MSC in the network. Since the mobile units are permanently associated with a particular MSC, no inter-MSC location update and handover is necessary as long as the mobile unit stays within the service area of the

wireless communication system. Moreover, using the message router methodology no routing database is necessary and the number of message routers can be increased as needed, Col. 20, lines 20-35).

Argument (Page 11)

Appellant argues that the second element of claim 1 (similar limitations in claims 5 and 6) that is missing from the Ernam reference: "...receiving a handover request for removing a first secondary communication control entity from a control process for controlling said call communication and adding a second secondary communication control entity."

Ernam teaches Inter-MSC handover(shifting communication control from first (or serving) MSC to second MSC) which by definition is a request for removing a first MSC(first secondary communication control entity) from a control process controlling said communication and adding a second MSC(second communication control entity).

(Ernam: "handover processing", Col. 10, line 1; "**With respect to inter-MSC handovers, there will not be a need for Inter-MSC handovers within the system. When there is an incoming mobile unit from another network, only then will there be a need to do an inter-MSC handover**", Col. 10, 41-43; Note: the limitation is just a definition for inter-MSC handover).

Argument (Page 11)

Appellant further argues that "contrary to the Examiner's statement that all elements are disclosed in the Ernam reference ...are not disclosed".

Examiner respectfully disagrees because the claimed invention is rejected by the combination of Ernam and Ho. As stated above, the combination of Ernam and Ho teaches all the claimed limitations.

In view of the above reasons, Examiner respectfully submits that claims 1-3 and 5-6 are properly rejected under 35 U.S.C. § 103(a) as being unpatentable over Ernam

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et al. (hereinafter Ernam) (US 6097951) in view of Ho et al. (hereinafter Ho) (US 6091953).

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/MUTHUSWAMY MANOHARAN/

Examiner, Art Unit 2617

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